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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,458	06/05/2001	Craig F. Culver	IMM059A	6909

7590 02/25/2004  
Kilpatrick Stockton  
1001 West Fourth Street  
Winston-Salem, NC 27101-2400

EXAMINER
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WU, XIAO MIN

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 02/25/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/875,458

Applicant(s)

CULVER, CRAIG F.

Examiner

XIAO M. WU

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 23-34 and 58-79 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-34 and 58-79 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 23-27, 30-34, 59-65, 67-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg (US Patent No. 5,825,308) in view of Rosenberg et al. (US Patent No. 5,691,898).

As to claims 23, 59, 67, 68, 70, 71, 73, Rosenberg ('308) discloses an apparatus comprising: a manipulandum (12, Fig. 1) movable in at least one degree of freedom, a sensor (220, Fig. 5) operable to detect a position of the manipulandum and a deviation of the manipulandum from the position and to output a first sensor signal associated with the deviation of the manipulandum from the position (see Fig. 15); an actuator (22, Fig. 5) operable to provide tactile feedback to the manipulandum associated with the first sensor signal; and a first processor (200, Fig. 5) operable to control the actuator and to receive the first sensor signal from the sensor. Rosenberg further discloses a second processor (180, Fig. 5) in communication with the first processor (200), the second processor operable to control the first processor (see Fig. 5).

It is noted that Rosenberg ('308) does not disclose that the manipulandum comprising a plurality of surface forming a volume and the actuator disposed in the volume of the manipulandum. Rosenberg ('898) is cited to teach an input device including an actuator inside of the input housing for providing a force feedback to the user (see Figs. 1 and 2). It would have

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been obvious to one of ordinary skill in the art to have modified Rosenberg ('308) with the features of the actuator located inside of the input device as taught by Rosenberg ('898) because integrating different components into the same housing can make the device more compact and smaller.

As to claim 24, Rosenberg discloses the manipulandum comprises a roller (col. 14, lines 19-21).

As to claim 25, Rosenberg discloses that the roller communicates an electrical signal (e.g. position signal) output to the first processor (200, Fig. 5).

As to claims 26, 27, 72, Rosenberg discloses that the sensors are digital rotary optical encoders which can detect X-Y movement.

As to claim 30, Rosenberg discloses that the processor (200) is included in a video game console (16, Fig. 1).

As to claim 31, Rosenberg discloses that the first processor (200) is included in a computer (16, Fig. 1).

As to claim 32, Rosenberg discloses that the processor is included in a Web-access device (col. 1, line 44).

As to claim 33, Rosenberg discloses that the first processor (200) is included in an electronic device (16, Fig. 1).

As to claim 34, Rosenberg discloses a second processor (180, Fig. 5), separate from the first processor and operable to communicate with the first processor (see Fig. 5).

As to claims 60-65, 69, 74-79, Rosenberg discloses a position control mapping mode and to control a rate of change of the value in a rate control mapping mode by the first processor (col. 36, lines 9-17, also, col. 7, lines 12-13).

1. Claims 28, 58 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg (US Patent No. 5,825,308) in view of Rosenberg et al. (US Patent No. 5,691,898) and Dunaway (US Patent No. 5,450,079).

As to claim 28, 58, and 66, it is noted that both of Rosenberg does not discloses that the handheld device is wireless and comprising a local display with a touch panel. Dunaway is cited to teach a handheld remote device which comprises a local display with touch panel and a local processor, separate from the host and operative to communicate with the host processor similar to Rosenberg. It would have been obvious to one of ordinary skill in the art to have modified Rosenberg with the features of the local display with touch panel as taught by Dunaway, so that the operator can view the input information from the remote device.

2. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg (US Patent No. 5,825,308) in view of Rosenberg et al. (US Patent No. 5,691,898) and Stobbs (US Patent No. 5,631,669).

As to claim 29, it is noted that both of Rosenberg does not discloses a microphone. Stobbs is cited to teach an input device similar to Rosenberg. Stobbs discloses a microphone within the input device. It would have been obvious to one of ordinary skill in the art to have modified Rosenberg with the features of the microphone as taught by Stobbs so as to input a voice command to the computer.

***Response to Arguments***

3. Applicant's arguments with respect to claims 23-34, 58-79 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US Patents 5,914,705 is cited to teach an input device including force feedback and an actuator located inside of the input housing.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiao Wu whose telephone number is (703) 305-4721.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9306**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377

xw

February 22, 2004



**XIAO WU  
PRIMARY EXAMINER  
ART UNIT 2674**